

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR

COMPREHENSIVE FIELD AUDIT

Unless otherwise noted, all code references are to 49CFR Part 192.
If an item is marked Unsatisfactory, Not Applicable, or Not Checked, an explanation must be included in this report.

Operator: AMEREN ILLINOIS COMPANY	Operator ID#: 32513
Inspection Date(s): 5/20/2015, 5/21/2015	Man Days: 3
Inspection Unit: Canton	
Location of Audit: Canton	
Exit Meeting Contact: Dallas Jett	
Inspection Type: Standard Inspection - Field Audit	
Pipeline Safety Representative(s): Kevin Hecker, Matt Smith	
Company Representative to Receive Report: Michael Fuller	
Company Representative's Email Address: mfuller2@ameren.com	

Headquarters Address Information:	300 Liberty Peoria, IL 61602 Emergency Phone#: (800) 755-5000 Fax#:	
Official or Mayor's Name:	Ron Pate Phone#: (217) 424-6518 Email:	
Inspection Contact(s)	Title	Phone No.
Dallas Jett	Superintendent of Quality Assurance	

CRITERIA FOR AREA SELECTED	Status
Higher population density	Yes
<u>General Comment:</u> <i>The areas chosen were in class 3 locations. Parts of this inspection were conducted in Class 1 and Class 2 locations because some of the items to be inspected were not located in the selected Class 3 area.</i>	
Age of system	Yes
<u>General Comment:</u> <i>For the cathodic protection portion of the audit, 2 areas were selected. One area in the 1100-1200 block of E. Locust was selected because it contained both 2" plastic main installed in 1990 (leaving isolated risers) as well a section of 2" steel main and services installed in 1971. The other area in the 500-700 block of E. Walnut contained 2" steel main and services, also installed in 1971.</i> <i>For the remainder of the audit, Staff inspected facilities throughout Canton, not just within the areas listed above.</i>	
Type of piping	Yes

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<u>General Comment:</u>		
<i>The areas chosen had a mix of newer plastic and older steel mains. Particular attention was paid to isolated risers.</i>		
Operating characteristics		No
<u>General Comment:</u>		
<i>Operating characteristics were not a factor in selecting this area for the comprehensive audit because no significant changes have been made to the gas system since a portion of the original steel system was replaced with PE pipe in the 1990's.</i>		
Performance history of system		No
<u>General Comment:</u>		
<i>Performance history was not a factor in selecting this area for the comprehensive audit because there have been no prevalent areas with failures, leaks, material defects, etc.</i>		
Manageable sized area should be chosen		Yes
<u>General Comment:</u>		
<i>The area chosen for this comprehensive audit encompassed approximately a 6 block area, which is a manageable size given the duration of this audit.</i>		
MAPS OF FACILITIES INSPECTED		Status
[192.605(b)(3)]	Were system maps provided as part of this audit?	Yes
<u>General Comment:</u>		
<i>Maps were provided and utilized primarily for the cathodic protection portion of this audit.</i>		
[192.603(b)]	Were system mapping used during this audit up to date?	Satisfactory
<u>General Comment:</u>		
<i>The maps provided were up to date. Staff confirmed the actual locations of the pipelines matched the maps while in the field.</i>		
CUSTOMER METER & REGULATOR		Status
<u>Category Comment:</u>		
1123 E. Locust St. 1131 E. Locust St. 1139 E. Locust St. 1140 E. Locust St. 1150 E. Locust St. 1160 E. Locust St. 1204 E. Locust St. 1214 E. Locust St. 1217 E. Locust St. 1227 E. Locust St. 1234 E. Locust St. 1237 E. Locust St. 534 E. Walnut St. 535 E. Walnut St. 540 E. Walnut St. 558 E. Walnut St. 559 E. Walnut St. 610 E. Walnut St. 643 E. Walnut St. 711 E. Walnut St.		

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712 E. Walnut St. 739 E. Walnut St. 757 E. Walnut St. 834 E. Walnut St.		
[192.357(a)]	Is the customer meter and regulator installed to minimize anticipated stresses upon connecting piping?	Satisfactory
<u>General Comment:</u> <i>All customer meter sets observed were well supported and straight.</i>		
[192.353(a)]	Is the customer meter and regulator installed in a readily accessible location and protected from corrosion and other damage, including if installed outside a building, vehicular damage that may be anticipated?	Satisfactory
<u>General Comment:</u> <i>All meter sets observed were in readily accessible locations and protected from corrosion and other damage.</i>		
[192.355(b)(1)]	Is the customer regulator vent rain and insect resistant?	Satisfactory
<u>General Comment:</u> <i>All customer regulator vents were protected by vent screens and pointed downward.</i>		
[192.355(b)(2)]	Is the customer regulator vent located where gas from the vent escapes freely into the atmosphere and away from building openings?	Unsatisfactory
<u>NOPV Comment:</u> <i>Staff observed a meter set located under a carport at 1160 E. Locust Street, Canton.</i>		
[192.355(b)(3)]	Is the vent protected from damage caused by submergence in areas of flooding?	Not Applicable
<u>General Comment:</u> <i>No meter sets observed were in areas prone to flooding.</i>		
[192.357(d)]	Is a customer regulator that might release gas vented to the outside atmosphere?	Satisfactory
<u>General Comment:</u> <i>All customer regulators observed vented gas to the outside atmosphere, except for 1160 E. Locust Street. (see above NOPV)</i>		
[192.359(a)]	Is the meter operating pressure within the allowable limits of the meter case rating?	Satisfactory
<u>General Comment:</u> <i>All meter sets were operating at pressures well within the allowable limits of the meter case rating.</i>		
[192.365(a)]	Is the service line valve upstream of the regulator or meter?	Satisfactory
<u>General Comment:</u> <i>All meter sets observed contained service line valves upstream of the meter/regulator.</i>		
[192.365(c)]	Is the service line valve located in a curb box or stand pipe that allows for ready operation?	Not Checked

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<u>General Comment:</u>		
<i>No service line valves located in curb boxes were inspected during this audit.</i>		
LEAK SURVEY		Status
<u>Category Comment:</u>		
<i>No leak survey was conducted as part of this audit due to inclement weather.</i>		
[192.723]	Was a leak survey conducted using operator leak detection survey equipment and system maps?	Not Checked
[192.603(b)]	Was the operator's equipment calibrated as required?	Not Checked
CATHODIC PROTECTION		Status
[192.463(a)]	Is the applicable cathodic protection criteria contained in Appendix D of this part being followed?	Satisfactory
[192.465(a)]	Were pipe to soil readings taken?	Satisfactory
<u>General Comment:</u>		
<i>Pipe to soil readings were obtained at the following locations:</i>		
534 E. Walnut: -1.205 535 E. Walnut: -1.112 540 E. Walnut: -1.121 558 E. Walnut: -1.240 559 E. Walnut: -1.072 610 E. Walnut: -1.279 643 E. Walnut: -1.162 711 E. Walnut: -1.028 712 E. Walnut: -1.282 739 E. Walnut: -1.104 757 E. Walnut: -1.095 834 E. Walnut: -1.186 1204 E. Locust: -1.234 1214 E. Locust: -1.219 1217 E. Locust: -1.213		
[192.465(b)]	Were rectifier installations inspected?	Satisfactory
<u>General Comment:</u>		
<i>Staff inspected the rectifier (#104415, Universal ES-2) on Route 78 south of Canton. Readings were taken as follows:</i>		
11.3mv (.2 shunt factor) = 2.26 A 6.55 V Coarse setting: 1 Fine setting: 5		
[192.465(a)]	Were isolated mains/services tested?	Satisfactory
<u>General Comment:</u>		
<i>The pipe to soil readings listed above were taken at isolated risers.</i>		
[192.465(c)]	Were critical/non critical bonds tested?	Satisfactory

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<u>General Comment:</u>		
<i>Staff inspected a critical bond located where Panhandle's 6" steel pipeline crosses Ameren's 2" high pressure distribution line on N. 20th Avenue. A reading of -1.379 was obtained on Panhandle's pipeline, and -1.331 on Ameren's pipeline.</i>		
[192.467(a)]	Is electrical isolation provided by use of insulated meter spud, valve, union, or flange?	Satisfactory
<u>General Comment:</u>		
<i>Staff observed insulated meter spuds at customer meter sets. The use of insulated flanges were observed on piping at the take point.</i>		
[192.467(c)]	Were casing installations tested for electrical isolation?	Satisfactory
<u>General Comment:</u>		
<i>The following casings were tested for electrical isolation:</i>		
<i>Casing at the railroad crossing on Route 78: Carrier Pipe: -1.668 / Casing: -1.281</i>		
<i>Casing at Holly and 4th (abandoned section of railroad): Carrier Pipe: -1.284 / Casing: -1.262</i>		
<i>Given the relatively close readings at this casing, the Panhandle Test was implemented to confirm electrical isolation. .156mA was applied which shifted the reading on the casing to +.203 and -2.083 on the structure.</i>		
[192.479(a)]	Is the above ground piping coated or painted as required?	Satisfactory
<u>General Comment:</u>		
<i>All above ground pipe observed was painted as required.</i>		
[192.479(c)]	Is the pipeline free of corrosion or pitting?	Satisfactory
<u>General Comment:</u>		
<i>All above ground pipe observed was free of corrosion or pitting.</i>		
MARKING OF FACILITIES		Status
[192.707(a)(1)]	Are line markers placed and maintained as close as practical over each buried main and transmission line located at each crossing of a public road and railroad?	Unsatisfactory
<u>General Comment:</u>		
<i>Line markers were observed at the following road crossings:</i>		
<i>W. Glasford-Canton Road and S. Shyrock</i>		
<i>W. Glasford-Canton Road and S. Martin Weber Road</i>		
<i>W. Glasford-Canton Road and S. Glasford Road</i>		
<i>W. Glasford-Canton Road and S. Coats Road</i>		
<i>W. Glasford-Canton Road and S. Trivoli Road</i>		
<i>Near intersection of W. Glasford-Canton Road and E. Big Barn Road</i>		
<i>Upper Lake Road and Middle Lake Road</i>		
<i>Copperas Road and E. Big Barn Road</i>		
<u>NOPV Comment:</u>		
<i>The casing at the railroad crossing on Route 78 north of Dunfermline was missing a pipeline marker.</i>		
[192.707(a)(2)]	Are line markers placed and maintained as close as practical over each buried main and transmission line located wherever necessary to identify the location of the transmission	Satisfactory

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	line or main to reduce the possibility of damage or interference?	
<p><u>General Comment:</u></p> <p>Staff observed line markers at the following locations:</p> <p>27214 E. Big Barn Rd. 28012 E. Big Barn Rd. 28309 E. Big Barn Rd. at a farm tap 29236 E. Big Barn Rd. 29998 E. Big Barn Rd. At a creek crossing on E. Big Barn Rd. Several along a pipeline clearing parallel to E. Big Barn Rd. 26404 County Hwy 27 at a farm tap 25575 Middle Lake Road 2 Markers along Ameren's 10" high pressure distribution line by the water plant</p> <p>Staff also observed several line markers along W. Glasford-Canton Road. Most were near utility poles indicating the high-pressure distribution pipeline located several yards off the road in farmed fields.</p>		
[192.707(c)]	Are line markers placed and maintained as close as practical over each main and transmission line located above ground?	Satisfactory
<p><u>General Comment:</u></p> <p>Staff observed line markers at the following above-ground facilities;</p> <p>Take point station #240049 Glasford town station #240028 Middle Lake Road station # 240061 Shyrock and Lancaster Road station #240029 Trivoli Road station #240057</p>		
[192.707(d)(1)]	Do the operator's line markers contain the following information: The following must be written legibly on a background of sharply contrasting color on each line marker: The word "Warning," "Caution," or "Danger" followed by the words "Gas (or name of gas transported) Pipeline" all of which, except for markers in heavily developed urban areas, must be in letters at least 1 inch (25 millimeters) high with ¼ inch (6.4 millimeters) stroke?	Satisfactory
<p><u>General Comment:</u></p> <p>All line markers observed contained the required information in the correct format.</p>		
[192.707(d)(2)]	Do the operator's line markers contain the following information: The following must be written legibly on a background of sharply contrasting color on each line marker: The name and phone number (including area code) of the operator where the operator can be reached at all times.	Satisfactory
<p><u>General Comment:</u></p> <p>All line markers observed contained the required information in the correct format.</p>		
ODORIZATION OF GAS		Status
<p><u>Category Comment:</u></p> <p>Staff inspected the Odorizer Station (CAN-ODR-31) located at the take point north of Glasford. Ameren utilizes a YZ injection style odorizer which injects 1.11ccs of odorant per stroke every 36 seconds. (current setting) This equates to 1.00 lb/MMCF which is the target saturation rate as stipulated in the operator's O&M.</p>		

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[192.625(a)]	Was the odor intensity level readily detectable at or below 1/5th LEL?	Satisfactory
<u>General Comment:</u> <i>An odor intensity test was conducted at Graham Hospital located at 299 W. Walnut Street, Canton. A reading of .337% gas was obtained utilizing a Heath Odorator, Serial # 2568-5.</i>		
[192.625(f)]	Was the operator's equipment calibrated as required?	Satisfactory
<u>General Comment:</u> <i>The Heath Odorator, Serial # 2568-5, was last calibrated on 9/16/14.</i>		
PRESSURE LIMITING AND REGULATING STATIONS		Status
[192.741]	Was the chart recorder calibration verified, if applicable?	Satisfactory
<u>General Comment:</u> <i>Ameren does not utilize chart recorders at the regulator stations observed by Staff. Staff did verify that the ERX devices, utilized at most of the regulator stations within the Canton Operating Center territory, are calibrated annually, not to exceed 15 months.</i>		
[192.603(b)]	Were the types of regulators and pressure relief devices verified?	Satisfactory
<u>General Comment:</u> <i>Staff reviewed regulator station specification documents identifying the types of regulators used, set points, relief settings, etc. This information was confirmed during the field audit.</i>		
[192.181]	Were the valves associated with regulator stations/vaults visually inspected to be readily accessible?	Satisfactory
<u>General Comment:</u> <i>There are no vaults within the Canton Operating Center territory.</i> <i>Staff inspected the following valves:</i> <i>Valve #240F057 located at Station # 240057 (Trivoli Road Station)</i> <i>Valve # 240T382 located at Station #240029 (Shyrock Station)</i> <i>Valve # 240F061 located at Station #240061 (Middle Lake Road Station)</i> <i>Valve # 240D061 located at Station #240061 (Middle Lake Road Station)</i> <i>Valve #240T370 located at Station #240028 (Glasford Station)</i> <i>Valve #240T391 located at Station #240049 (Odorizer Station)</i>		
[192.707(c)]	Is station marked properly?	Satisfactory
<u>General Comment:</u> <i>All regulator stations were marked with Ameren's station number and line markers.</i>		
[192.615]	Was the MAOP of the downstream system verified?	Satisfactory
<u>General Comment:</u> <i>MAOP was confirmed during the review of the regulator specification sheets.</i>		
[192.739(a)]	Was the most recent regulator station inspection data reviewed?	Satisfactory
<u>General Comment:</u> <i>The most recent regulator station inspection was confirmed during the review of the regulator specification sheets.</i>		

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[192.739(a)]	Was the set point and lockup pressure from the most recent inspection data reviewed?	Satisfactory
<u>General Comment:</u> <i>Set point and lock up pressure from the most recent inspection was confirmed during the review of the regulator specification sheets.</i>		
[192.739(a)(3)]	Was the set point field verified?	Not Checked
<u>General Comment:</u> <i>Staff did verify set points with a gauge during the field audit.</i>		
[192.317(b)]	Is each above ground transmission line or main protected from accidental damage by vehicular traffic or other similar causes?	Satisfactory
<u>General Comment:</u> <i>All regulator stations observed were protected by barriers or were located within fenced enclosures.</i>		
[192.199(d)]	Are the supports for the pressure relief or pressure limiting devices made of noncombustible material?	Satisfactory
<u>General Comment:</u> <i>All regulator stations were supported with steel supports.</i>		
[192.199(e)]	Are the pressure relief or pressure limiting device discharge stacks, vents, or outlet ports designed to prevent accumulation of water, ice, or snow, and located where gas can be discharged into the atmosphere without undue hazard?	Satisfactory
<u>General Comment:</u> <i>All pressure relief vents and stacks observed were protected from the accumulation of water, ice or snow.</i>		
[192.199(h)]	Was each valve, designed to isolate the system under protection from its source of pressure, secured to prevent unauthorized operation of any stop valve that will make the pressure relief valve or pressure limiting device inoperative?	Satisfactory
<u>General Comment:</u> <i>All emergency valves observed were below ground and required specialty tools to operate.</i>		
VALVE MAINTENANCE		Status
<u>Category Comment:</u> <i>The following valves were inspected:</i> <i>Valve #240F057 located at Station # 240057 (Trivoli Road Station)</i> <i>Valve # 240T382 located at Station #240029 (Shyrock Station)</i> <i>Valve # 240F061 located at Station #240061 (Middle Lake Road Station)</i> <i>Valve # 240D061 located at Station #240061 (Middle Lake Road Station)</i> <i>Valve #240T370 located at Station #240028 (Glasford Station)</i> <i>Valve #240T391 located at Station #240049 (Odorizer Station)</i>		
Determine if estimated number of customers affected by valve closure meets operator maximum allowed during an outage.		Yes
<u>General Comment:</u>		

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Below is a list of the valves inspected and number of customer that would be lost in the event that valve would be closed:

Valve #240F057: 37 Customers

Valve # 240T382: 17 Customers

Valve # 240F061: No customers would be lost because the system is fed by multiple regulator stations.

Valve # 240D061: No customers would be lost because the system is fed by multiple regulator stations.

Valve #240T370: 460 Customers

Valve #240T391: 39 Customers

[192.747(a)]	Were the valves inspected accessible?	Satisfactory
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General Comment:

All valves observed were accessible.

[192.747(a)]	Was the condition of the valve boxes inspected?	Satisfactory
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General Comment:

All valve boxes observed were in good condition.

[192.603(b)]	Are valves recorded correctly on maps and inspection forms/screens?	Satisfactory
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General Comment:

The distribution valves observed were mapped correctly.

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